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ATTACHED FOR YOUR APPROVAL (N'DIV.) IS THE FINAL WORK PLAN (SUBMITTAL #36, FINAL 2-5-99, 10 PAGES) FOR DEMOLITION SHIPYARD AREA MISCELLANEOUS INVESTIGATION ACTIVITIES. COPY OF MEMO (NOTIFICATION OF SCHEDULED ACTIVITIES) TO RIDEM (1 PAGE). *

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N62472-D-0398	0013C	NETC NEWPORT, RI

PROJECT TITLE: DETECTOR SHIPYARD AREA MISC. INVESTIGATION ACTIVITIES

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FOSTER WHEELER ENVIRONMENTAL / SQCM R. BEAUREGARD	2-5-99
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ITEM NO.	SUBMITTAL DESCRIPTION	PREPARED/SUBMITTED BY	APPROVED	DISAPPROVED	REMARKS
1	DETECTOR SHIPYARD AREA MISCELLANEOUS INVESTIGATION ACTIVITIES				
*	FINAL WORK PLAN				
	(10 PAGES)				

NDW-078 11-24-98

* SCHEDULE FAX TRANSMITTAL (SC TO RG/RIDEM) 2-5-99 (1 PAGE)

U.S. NORTHERN DIVISION
REMEDIAL ACTION CONTRACT (RAC)
CONTRACT NO. N 62472-94-D-0398
DELIVERY ORDER NO. 013C

FINAL

MISCELLANEOUS INVESTIGATION ACTIVITIES
FORMER DERECKTOR SHIPYARD
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

Prepared by

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2-5-99

FIGURES

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MISCELLANEOUS INVESTIGATION ACTIVITIES
FORMER DERECKTOR SHIPYARD
NAVAL STATION NEWPORT
WORK PLAN ADDENDUM

The following document shall serve as an addendum to the Derecktor Shipyard, Building S42-1 Sump Pit Removal/PCB Soil Removal Work Plan dated 4/18/98, Contract No. N62472-94-D-0398, Delivery Order No. 013C.

1.0 INTRODUCTION

1.1 Project Background

Derecktor Shipyard was a 42 acre site which occupied the northeast waterfront of the Naval Education Training Center (NETC). There primary business was ship construction and repair. Under the Remedial Action Contract, Foster Wheeler Environmental Corporation (FWENC) was selected to perform miscellaneous investigation activities at the Former Derecktor Shipyard. These activities include exposing the Building 42 Sump S42-5 and any associated piping to determine inlet/outlet locations, exploratory trenching within the Former Disposal Pits adjacent to the northeast corner of Building 42 searching for signs of possible TPH contamination from disposed bilge water, sampling for PCBs adjacent to the transformer pad south of Pier 1, sampling for PCBs up-gradient and down gradient of the transformer pad located at what was once the Building 54 Substation 16, and excavating a test pit (7 foot south of MW-09). 2-5-99

1.1.1 Objectives

The objectives to be met for the above referenced additional tasks under this Delivery Order are:

- Install soil erosion control measures for the S42-5 Sump excavation. Excavate and expose Building 42 Sump S42-5 and any associated piping. Determine origins/outfalls, photo document exposed conditions, and restore disturbed areas.
- Install soil erosion control measures for the exploratory trenching of the Former Disposal Pits. Excavate approximately 240 linear feet of trench. Field screen soils during excavation looking for signs of contamination. Sample stained areas for TPH as necessary. Restore disturbed areas.
- Collect a core sample adjacent to the transformer pad which is south of Pier 1. Analyze sample for PCBs.
- Collect one sample up-gradient and one sample down gradient of the transformer pad which is located within the former Building 54 Substation 16. Analyze the samples for PCBs.

- Excavate a test pit (7 foot south of MW-09). Sample soil and analyze for metals. 2-5-99

4.0 PROJECT EXECUTION FOR THE INVESTIGATIVE ACTIVITIES

4.1 Erosion and Sediment Control S42-5 Sump and Former Disposal Pits

Erosion and sediment controls will be installed around the perimeter of the excavations. Control measures will consist of 2 foot minimum silt fence filter fabric, buried 4 inches, augmented with hay bales as needed. Erosion and sediment controls will be installed prior to the start of any activities and be inspected on a daily basis. Maintenance will be done as needed with enhancements added as necessary. Soil erosion and sediment controls will be left in place until the restored areas have sufficient growth established to prevent erosion.

4.2 Building 42, S42-5 Sump Excavation

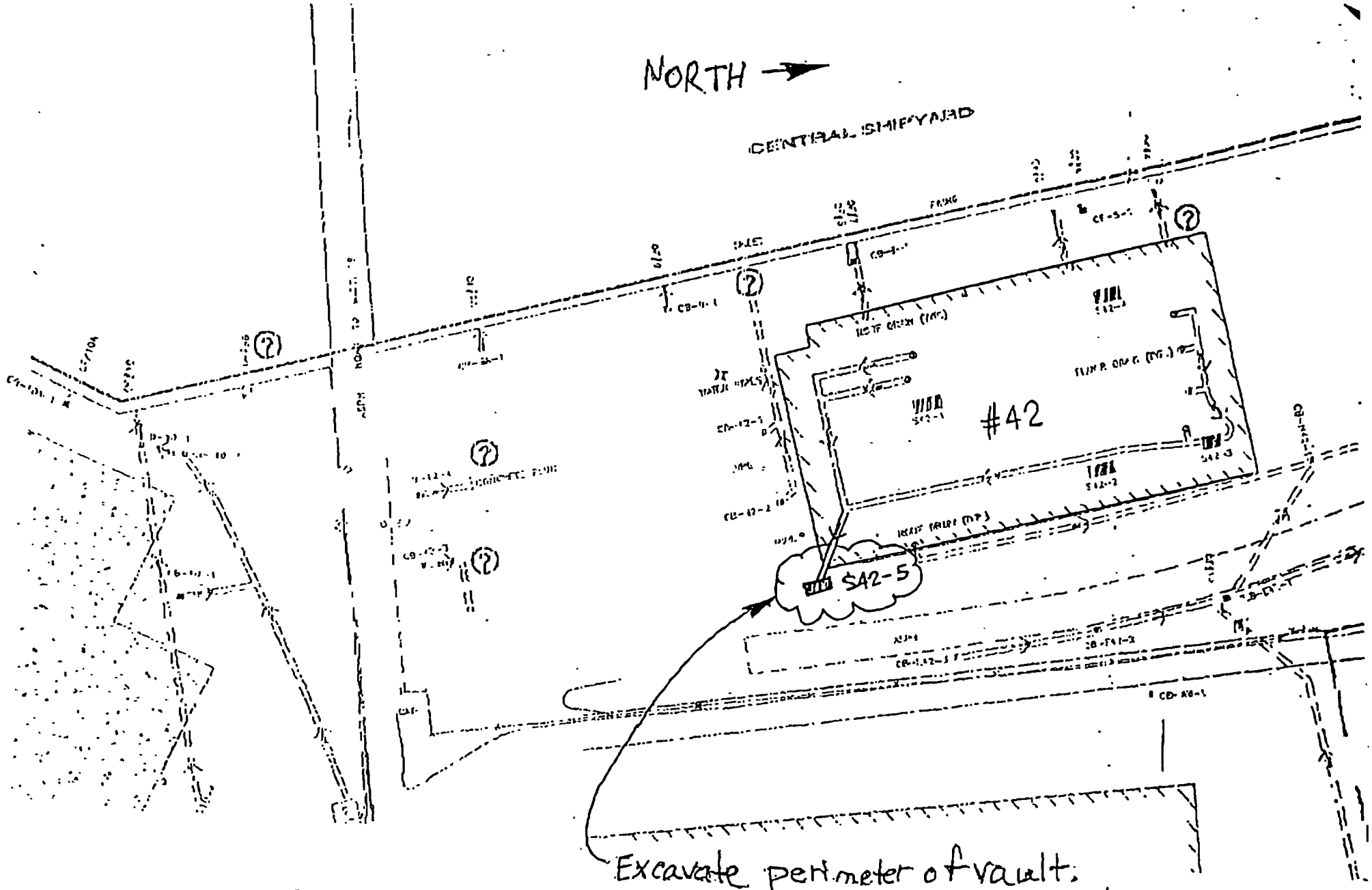
Foster Wheeler will excavate the perimeter of the sump utilizing a Caterpillar 416 Rubber Tire Backhoe or equivalent. Refer to figure 1 for the location of the sump. A dig safe permit will be obtained prior to any excavation activities. Soil Erosion and Sediment Controls will be installed as referenced in section 4.1 of this work plan. Excavation will start at existing grade and continue to the bottom of the sump. All four sides of the sump will be exposed by trenching one bucket in width. Care will be taken not to disturb any piping which might enter or exit the sump. Spoils from the excavation will be staged adjacent to the trench within the confines of the erosion control measures. If suspect contaminated soils are encountered they will be placed on 10 mil polyethylene sheeting and covered. 2-5-99

If piping is encountered they will be exposed back to their origin or out-fall to the ability of excavation. The exposed sump along with any exposed piping will be photo documented. Pipe direction will be plotted on a drawing of the area with a brief report summarizing our findings submitted for record.

Restoration of the disturbed area will consist of placing the removed soils back into the excavation. Soils will be compacted with the backhoe bucket. The area will then be seeded and mulched.

4.3 Exploratory Trenching, Former Disposal Pits

Foster Wheeler will utilize a Caterpillar 416 or equivalent to excavate approximately 240 linear feet of investigative trenches. Refer to figure 2 for the approximate locations. These trenches will be excavated to the existing ground water elevation, approximately 5 feet, and be one bucket in width. Spoils will be staged adjacent to the trench excavation.



DIG SAFE
#19990400291

FIGURE 1

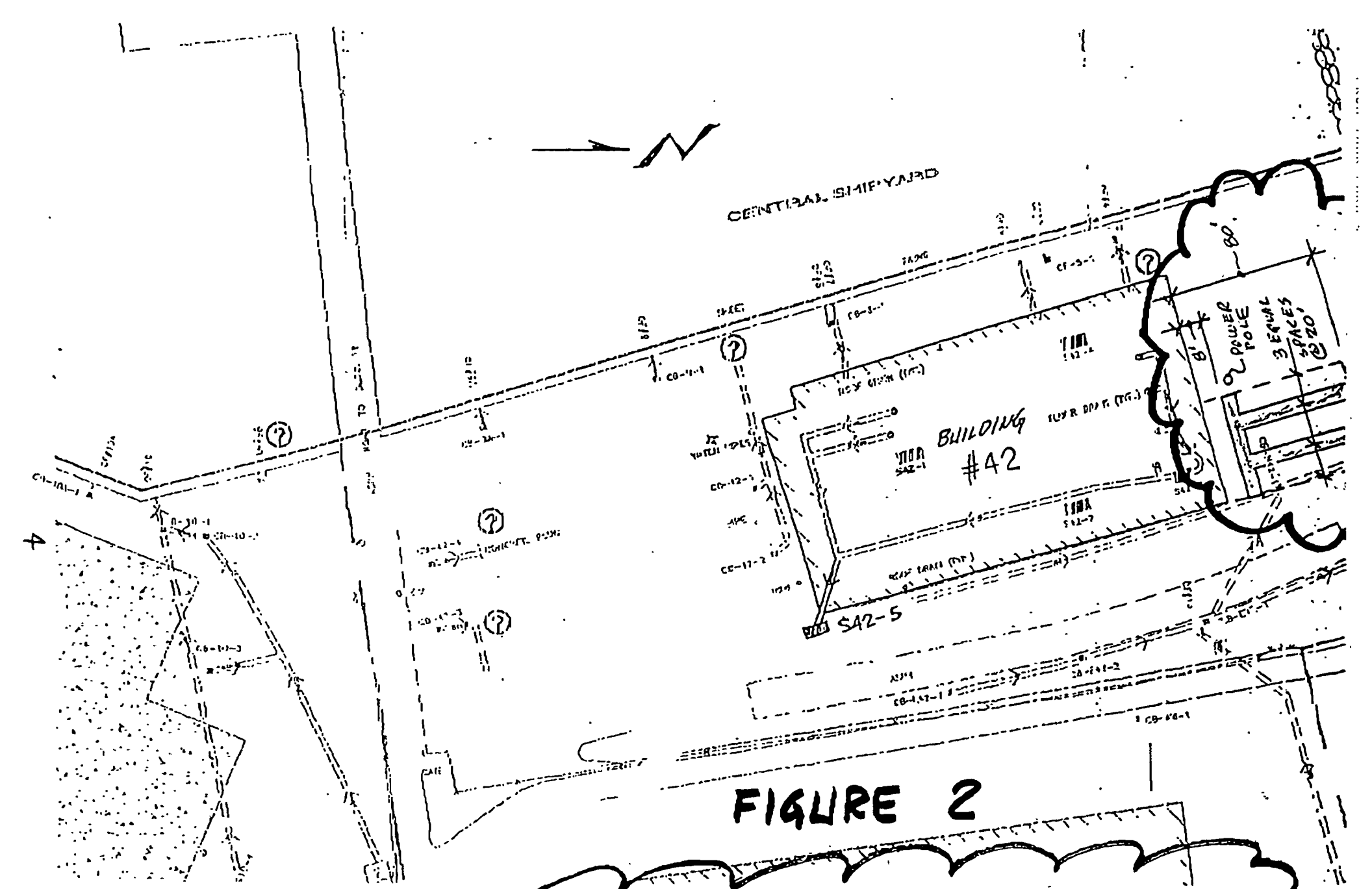


FIGURE 2

DIG SAFE #19990503521

NOTE: SHADED AREA (NORTHEAST CORNER OF BLDG # 42), REPRESENTS BACKHOE EXCAVATION AREA, APPROXIMATELY 24" WIDE (BUCKET WIDTH), EXCAVATED TO GROUND WATER (APPROX. 5' IN DEPTH).

If suspect contaminated soils are encountered they will be placed on 10 mil polyethylene sheeting and covered.

During trenching, soils will be field screened looking for signs of contamination. The soils olfactory and visual characteristics shall be observed and logged in the field logbook. An FID will be utilized to screen the breathing zone and any soils exhibiting staining will be collected with a trowel and placed in collection jars for headspace screening. In the event that soils indicate signs of contamination, a soil sample shall be collected and analyzed as described below:

Soils exhibiting staining shall be collected with decontaminated stainless steel hand trowels and composited in bowls prior to transfer into sample jars. These samples will be collected and analyzed for TPH (EPA Method 8015), VOC (EPA Method 8260), and SVOC (EPA Method 8270). Sample locations will be documented and incorporated on the site field map with dimensions. 2-5-99

Restoration of the disturbed area will consist of placing the removed soils back into the excavation. Soils will be compacted with the backhoe bucket. The area will be seeded and mulched

4.4 PCB Soil Sampling, Transformer Pad South Of Pier 1

One core sample will be collected on the north side of the transformer pad where there appears to be stained soils. Prior to sample collection the broken pavement along with loose soil will be removed from the sample location. This core sample will be collected with a decontaminated stainless steel hand auger advancing from 0 - 1 ft below cleaned area (removal of pavement and loose soils). The sample will be composited in a decontaminated stainless steel bowl with a trowel and analyzed for PCBs (EPA Method 8082). Refer to Section 5.3 for Sample Packaging and Shipping requirements. 2-5-99

4.5 PCB Soil Sampling, Building 54, Substation 16

Two core samples will be collected from the Building 54, Substation 16 area. One core sample will be located up-gradient of the other down-gradient of the substation concrete pad. Each core sample will be collected with a decontaminated hand auger advancing from 0 - 1 foot below ground surface. The individual core will be then be composited in a decontaminated stainless steel bowl with a trowel. Both samples will be analyzed for PCBs (EPA Method 8082). See Section 5.3 for Sample Packaging and Shipping requirements.

The hand auger, bowl and trowel will be thoroughly decontaminated between each core. See Section 6.0 for Decontamination Procedures.

4.6 Test Pit (7 Foot South of MW-09)

Foster Wheeler will excavate a test pit (7 foot south of MW-09) utilizing a Caterpillar 416 rubber tire backhoe or equivalent. Soil erosion control measures will be installed to encompass the test pit excavation. All soils removed will be placed within the silt fence with suspect soils placed on 10 mil polyethylene sheeting. Foster Wheeler will screen soils removed looking for signs of reddish colored soils. The soils characteristics shall be logged in the field log book. The test pit excavation will continue until the reddish colored soils are encountered or until ground water is reached. Samples will be collected from the suspect contaminated soils and analyzed for metals, Target Analyte List of 23 Metals (EPA Method 6010/7471).

Restoration will consist of placing the removed soils back into the excavation compacting the soils with the backhoe bucket. The area will then be seeded and mulched. 2-5-99

4.7 Photo Documentation

During the investigation activities key aspects of the project will be photo documented and video taped. The key aspects to be documented in this manner include the following: site conditions prior to all investigation activities, operations during investigation activities, visible evidence of contamination observed, and site close-out. Upon completion, a copy of all photographs, video tapes, and field notes will be submitted to the Rhode Island Department of Environmental Management (RIDEM).

5.0 FIELD INVESTIGATION ACTIVITIES

This section addresses the field investigation activities, including:

- Sample Tracking System
- Sample Analytical Requirements
- Sample Packaging and Shipping
- Sample Documentation

5.1 Sample Tracking System

The objective of the sample tracking system is to provide a framework for developing sample numbers that are unique to that sample.

There will be at minimum four samples collected during this field work. Samples collected from the trenches associated with the Former Disposal Pits will be identified as DPSOIL01 with the 01 increasing for each sample collected in this area. Samples collected from the Transformer Pad and Building 54, Substation 16 will have the following nomenclature respectively, TPSOIL01, S16SOIL01, and S16SOIL02. The 2-5-99

sample to be collected from the test pit (7 feet south of MW-09) will be identified as MW09TPSOIL01.

5.2 Sample Analytical Requirements

2-5-99

Analytical requirements are as follows: PCB (EPA Method 8082), TPH (EPA Method 8015), VOC (EPA Method 8260), SVOC (EPA Method 8270), an for metals the Target Analyte List of 23 Metals (EPA Method 6010/7471). The only matrix collected will be soils.

5.3 Sample Packaging And Shipping

The objective of the sample packaging and shipping requirements are to maintain sample integrity from the time a sample is collected until it is received at the analytical laboratory. Chain-of-custody (COC) forms, sample labels, custody seals, and other sample documents will be completed to maintain sample integrity. Specific procedures for packaging and shipping of environmental samples are presented below. These procedures were obtained from the USEPA Compendium of Superfund Field Operations Methods.

5.3.1 Environmental Samples

Low-concentration samples are defined as environmental samples and should be packaged for shipment as follows;

A sample label is attached to the sample bottle. The label should be taped over with clear packing tape to preserve legibility.

1. A picnic cooler (such as a Coleman or other sturdy cooler) is typically used as a shipping container. In preparation for shipping samples, the drain plug is taped shut from the inside and outside, and a large plastic bag is used as a liner for the cooler. Approximately 1 inch of packing material, such as asbestos-free vermiculite, perlite, or styrofoam beads, is placed in the bottom of the liner.
2. The sample bottles are placed in the lined picnic cooler. Cardboard separators, and/or additional packing material, should be placed between the bottles to prevent breakage during shipping.
3. Samples for VOCs will be collected at a minimum of 3-6 inches below the depth of the excavation and placed in Laboratory provided bottleware which will be preserved with methanol. The samples will be immediately placed on ice.
4. The lined cooler is filled with packing material (such as asbestos-free vermiculite, perlite, or styrofoam beads), and the large inner liner is taped shut. Sufficient packing materials should be used to prevent sample containers from making contact during shipment.
5. Historically, a local laboratory has been used for sample analysis. The cooler lid must be taped shut with strapping tape (filament-type) and the COC completely filled out

by the sample technician including signature, time and date in the Relinquished By column. When the laboratory courier arrives the sample cooler and COC will be relinquished to the courier with his/her signature, time and date written in the Accepted By column indicating transfer complete. The laboratory should be notified if the shipper suspects that the sample contains any substance for which the laboratory personnel should take safety precautions.

5.4 Sample Documentation

The following documentation is associated with sample collection and transfer:

- Field Logbooks
- Site Logbooks
- Master Sample Log
- Sample Label
- Chain-of-Custody Form

6.0 DECONTAMINATION

The objective of this section is to provide the methodology for the proper decontamination procedures to be used on chemical sampling and field analytical equipment.

In order to assure that chemical analysis results are reflective of the actual concentrations present at sampling locations, chemical sampling and field analysis equipment must be properly decontaminated prior to the field effort, during the sampling program (i.e. between sample points), and at the conclusion of the sampling program. This will minimize the potential for cross-contamination between sample points and the transfer of contamination off-site.

Prior to sampling, equipment will be decontaminated using the following procedures:

1. Potable water rinse.
2. Alconox detergent wash. Scrubbing with a scrub brush may be required if the equipment is heavily contaminated with heavy or extremely viscous compounds (not anticipated).
3. Potable water rinse.
4. Methanol rinse.
5. Distilled or deionized water rinse.
6. Air dry.
7. Wrap sampling equipment in aluminum foil (shiny side out).